

# 1

# INTRODUCTION

## Chapter Outline:

**1.0 Background** **1.1 School Descriptions** **1.2 Planning Process** **1.3 Vision and Goals**  
**1.4 SRTS Action Plan Framework**



## 1.0 BACKGROUND

The Town of Carrboro Safe Routes to School Action Plan is a planning document prepared by committed citizens, parents, school administrators, and local government officials that recognizes goals and visions for enhancing opportunities for active travel to school, and outlines ways to turn those opportunities into realities. The Action Plan is the best first step in a successful Safe Routes to School program. This Action Plan addresses Carrboro Elementary and McDougale Elementary Schools. The planning process served as an excellent tool for engaging schools and preparing them to make significant changes in their travel environments.

Many adults today walked or bicycled to school when they were young. But few of today's children enjoy that trip. There are a number of reasons for the decline in active travel to school, from land use policies and school consolidation, to fears about traffic safety and lack of infrastructure for non-motorized transportation. As a result, more parents are driving their children to school, morning traffic congestion is getting worse, and children are getting less exercise. Childhood obesity and diabetes rates are at all-time highs. Committed citizens in North Carolina can change this cycle, just as those in other communities across the country have done.

Safe Routes to School began as a safety initiative in Odense, Denmark about 30 years ago. The community was experiencing a high rate of crashes, including fatalities, involving children on their way to and from school. To resolve the problem, the Town brought together a diverse group of citizens, transportation professionals, and local government representatives who developed and implemented a variety of infrastructure improvements and educational and awareness programs. They achieved dramatic

results, with 29% fewer crashes involving students and a 58% reduction in the overall number of crashes involving pedestrians and cyclists. Because of the community's educational program highlighting the benefits of bicycle helmets, their use increased significantly and injuries declined<sup>1</sup>.

Clearly, Safe Routes to School helps not only schoolchildren, but also the community as a whole. Other European cities took note and began their own programs, followed in short order by cities in New Zealand, Australia, and Canada, then the United States in the 1990s. The Bronx is credited with the United States' first Safe Routes to School program<sup>1</sup>. Successful federal pilot programs in California and Florida have demonstrated how educational and encouragement programs can help get more children safely walking and bicycling to school, and have paved the way for a national Safe Routes to School program.

### **The primary goals of the Safe Routes to School Program are to:**

- 1) Enable and encourage children, including those with disabilities, to walk and bicycle to school;
- 2) Make bicycling and walking to school a safer and more appealing transportation option, thereby encouraging a healthy and active lifestyle from an early age; and
- 3) Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools<sup>2</sup>.

## ***The Federal Safe Routes to School Program<sup>2</sup>***

The Federal Safe Routes to School Program was established in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). It is a federally-funded reimbursement program providing communities with the opportunity to improve conditions for bicycling and walking to school. Section 1404 of SAFETEA-LU mandates that the North Carolina Department of Transportation (NCDOT) administer this program within the state, providing financial assistance to state, local, and regional agencies, and non-profit organizations that demonstrate an ability to meet the requirements of the program. The program provides funds for infrastructure improvements and non-infrastructure educational and encouragement activities for schools serving grades K-8. Infrastructure improvements must occur within a two-mile radius of the school<sup>2</sup>. This distance is considered reasonable for a child to bicycle to and from school each day.

## ***The NC Safe Routes to School Program***

The North Carolina Department of Transportation's Division of Bicycle and Pedestrian Transportation has a long history of promoting active travel to and around schools. The Division continues to work with numerous communities across the state to develop pedestrian and bicycle plans, which is often the first step in improving non-motorized transportation infrastructure within a municipality. The Division provides a number of other services, including safety education, bicycle use training, crossing guard training, and helmet promotions throughout the state, as well as design support to other NCDOT units.

The NCDOT first identified safe travel to school as a safety priority in 2000. In 2005, it established the North Carolina Safe Routes to School (SRTS) Program to coordinate with the federal program. It works with schools, local governments and agencies, advocacy and non-profit organizations, and public health professionals at a grassroots level to identify improvements that can help make bicycling and walking to and from school a safe and healthy transportation alternative.

The Town of Carrboro is one of the first communities to develop an official SRTS Action Plan in the State of North Carolina. While infrastructure improvement is a key recommendation, education and encouragement programs are also critical to change a community's habit of driving children to school. Parents are persuaded by the actions of others. If other children in their neighborhood are walking or bicycling, they are more likely to let their children do so as well.

**"Motor vehicle crashes are the leading cause of death for children from 2 to 14 years old." (Source: National Highway Traffic Safety Administration<sup>3</sup>)**

## ***Why Safe Routes to School Matters***

Nationally, fewer than 15% of children walk or bicycle to school. Nearly half of all school-aged children are driven to school<sup>4</sup> by their parents. This contrasts sharply with the statistical picture of 40 years ago. In 1969, 42% of all school-aged children walked or bicycled to school. In fact, almost 90% of kids living within one mile of their school walked or bicycled<sup>5</sup>. This decline in active travel coincides with a three-fold rise in childhood obesity and an alarming increase in adult onset diabetes - among children. A 2008 analysis by the U.S. Centers for Disease Control and Prevention shows that the South has the worst record of any U.S. region in active travel to school, with only 36% of children living within a mile of school walking or bicycling at least one day each week<sup>6</sup>. Only about half of North Carolina's schoolchildren are getting the recommended amount of physical activity, at least one hour most days, preferably everyday<sup>7</sup>.

In addition to health concerns, the increase in the number of children being driven to school by their parents directly affects traffic congestion. Studies by the National Highway Traffic Safety Administration (NHTSA) show that school-related traffic accounts for 20 to 25% of all morning peak hour traffic<sup>5</sup>. By reducing the number of parents driving children to school, we can relieve morning peak hour delays and congestion. Reducing congestion around a school will improve the air quality. Although pollutants from congestion do not cause asthma, it can be a factor

in triggering attacks. A study performed in Atlanta, Georgia during the 1996 Summer Olympics showed a direct link between asthma and air quality. During the 17 days of the games, the City increased public transportation and limited the use of private vehicles in the downtown area, reducing morning traffic by 23% and peak ozone amounts by 28%. During this same time, there was a 42% decrease in asthma related hospitalizations, emergency room visits, and urgent care visits when compared to the 4 weeks before and after the Summer Games<sup>8</sup>. Asthma accounts for over 14 million missed school days each year (approximately 4 days per year per student with asthma)<sup>9</sup>. Therefore, improving the air quality around schools can improve student attendance rates.

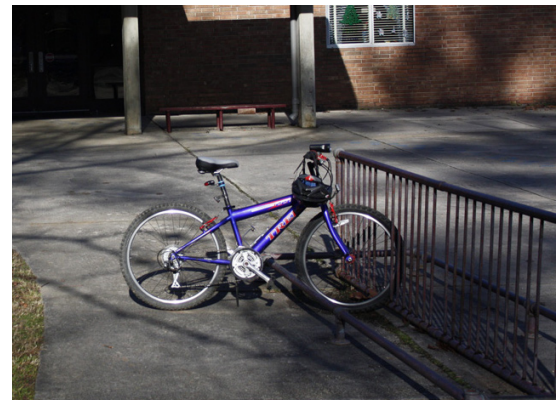
Overall, there are several significant benefits to providing exercise for children: weight control, healthy bones, and fighting disease. Additionally, children who exercise regularly tend to sleep better at night and feel more rested for school. Starting good habits at an early age and benefit a lifetime.

Research has shown that the most successful way to increase bicycling and walking is through a comprehensive approach that includes the “Five E’s”: education, encouragement, engineering, enforcement,

and evaluation. Local SRTS programs can address these topics by following a comprehensive strategy that focuses on infrastructure improvements where the physical environment is not conducive to walking or bicycling, and promoting non-infrastructure programs, including education, encouragement and enforcement strategies.

## 1.1 SCHOOL DESCRIPTIONS

**Carrboro Elementary** serves Pre-K through 5th grade and is located in a well-established neighborhood, just north of the Downtown Carrboro core. It serves over 550 children of which approximately 60 walk or bicycle to school. About 21% of its students live within two miles of the school.



*A bicycle outside the entrance of Carrboro Elementary.*

Carrboro Elementary Enrollment Data and School Characteristics	
Grades Serviced	PreK – 5
Total Enrollment	553 (48 in PreK)
Number of Students Living Within 2 Miles	117
% of Students Living Within 2 Miles	21%
Number of Buses	6
Number of Students Riding Buses	185 (33%)
Number of Students Walking	40 (7%)
Number of Students Bicycling	20 (4%)
Number of Students Driven	308 (56%)
Special Needs Population	No
Land Uses Surrounding School	Mostly Residential
“No transport” or “walk” zones	Yes (2 miles)
Crossing Guards	Yes (5 locations)
Policies that Restrict Walking or Bicycling	No
Existing Safety Patrol Program	No
Bicycle Safety Taught to Students	Yes



**McDougle Elementary** serves grades K-5 and is located in the north Carrboro, near the Old Fayetteville Road/Hillsborough Road intersection. It is found adjoining established single-family neighborhoods and rural lands to the north. It serves 570 children of which approximately 140 (with permission) walk or bicycle to school.

McDougle Elementary Enrollment Data and School Characteristics	
Grades Served	K – 5
Total Enrollment	570
Number of Students Living Within 2 Miles	Unknown
% of Students Living Within 2 Miles	Unknown
Number of Buses	7
Number of Students Riding Buses	131 (23%)
Number of Students Walking	80 (with permission) (14%)
Number of Students Bicycling	60 (with permission) (11%)
Number of Students Driven	299 (52%)
Special Needs Population	17
Land Uses Surrounding School	Mostly Residential
"No transport" or "walk" zones	Yes (1 mile)
Crossing Guards	Yes (2 locations)
Policies that Restrict Walking or Bicycling	No
Existing Safety Patrol Program	Yes
Bicycle Safety Taught to Students	Yes



*Parents and students at McDougle Elementary.*

## 1.2 PLANNING PROCESS

This planning process began with a ‘kick-off’ meeting in November 2009, which included a visioning and exercise and map working session with the project staff, steering committee, and Consultants. This meeting was followed by comprehensive fieldwork and a public workshop that sought input from residents, including parents, teachers, principals, children, and Town staff. This input and analysis led to the development of a draft plan that consisted of an analysis of existing conditions, and recommendations in the areas of engineering, education, encouragement, enforcement, and evaluation. The plan communicates the current conditions for walking and bicycling around McDougale Elementary and Carrboro Elementary, recommends improvements, and outlines strategies to carry out those recommendations. The steering committee, Town staff, and NCDOT met with the Consultants for a draft plan review in which comments were provided. The final plan is an action-oriented document that will guide the Town of Carrboro and both schools in making it safer to walk and bicycle to school and to encourage more children and families to walk and bicycle to school.

## 1.3 VISION AND GOALS

The following five-year vision and goal statements were developed out of the Town’s original SRTS planning grant application and from committee members and the general public during the planning process. These statements guided the development of this Plan:

- Increase the percentage of children walking and bicycling to school to 25% by year 2015.
- Expand walk zones so that less people ride the bus and more people walk or bicycle to school.
- Implement incentive programs for participating kids.
- Relieve parent’s fears about walking and bicycling.
- Create a culture that encourages walking.
- Reduce vehicular miles traveled.
- Calm traffic and enforce traffic laws.

- Develop encouragement / incentive programs that will include all children (including the ones that cannot walk or bicycle to school).
- Develop new greenways.
- Educate parents and children on the benefits of walking and bicycling.
- Incorporate pedestrian and bicycle safety in PE classes.
- Increase school board participation and support.
- Incorporate/consider SRTS guidelines in new site selection.
- Provide greater connectivity between neighborhoods and schools.
- Develop guidelines and set priorities for actual projects that will encourage and increase walkers (will require DOT support).
- Conduct neighborhood education and support initiatives to address current opposition.
- Develop programs for working parents.
- Involve/develop collaboration with local businesses and agencies for park and walk locations and sponsorships.
- Have bi-lingual education and encouragement plans.
- Create and maintain evaluation and monitoring sub-groups such as a Safe Routes to School advocacy group that would champion this plan and evaluate its progress.

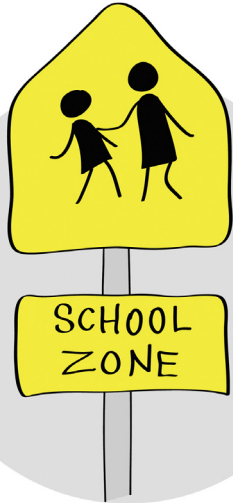
## 1.4 SRTS ACTION PLAN FRAMEWORK

The Town of Carrboro SRTS Action Plan was developed with a comprehensive, framework approach addressing all 5 E’s of the SRTS program (engineering, education, encouragement, enforcement, and evaluation). Recommendations and priorities are developed for all 5 E’s. They are talked about more in-depth on the following page.

# The 5 E's of Safe Routes to School

## ENGINEERING

Engineering strategies can enable more bicycling and walking and also make these activities safer. Engineering can include: improving & installing sidewalks, crosswalks, signage, traffic signals and more.



## ENCOURAGEMENT

Encouragement strategies are about having fun — they can provide ways for parents and children to discover that walking and bicycling are do-able and a lot of fun! Special events and contests can get kids excited to be a part of SRTS!



## EDUCATION

Education activities teach pedestrian, bicycle and traffic safety, as well as create awareness of the benefits and goals of SRTS. Lessons can be incorporated into classroom activities or special events to teach skills. Parents, teachers, drivers and neighbors can all be a potential audience for SRTS's messages.



## ENFORCEMENT

Enforcement through the SRTS program should involve a network of community members working together to ensure safe walking, bicycling and driving. It helps deter unsafe behaviors of drivers, pedestrians and bicyclists.



## EVALUATION

Evaluation is about identifying issues, improving activities and understanding results. It is an important component of any SRTS program because it is used to determine if the goals of the strategies are being met and to assure that successful efforts are being recognized.



## Footnotes

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